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ABSTRACT

H. R. Butler Elementary School was the recipient of local and federal compensatory funds during the 1972-73 school year. Through the local comprehensive Instructional Program, the school received testing and personnel services pertinent to the reading program, particularly in the primary grades. Federal funds from Title I of the 1965 Elementary and Secondary Education Act provided professional and paraprofessional staff and funds for materials and supplies to improve the reading achievement of the most educationally deprived pupils. Services were also supplied by a Georgia State University program to kindergarten pupils suspected of having learning disabilities and handicaps. The purpose of this report is to evaluate the effects of these special projects on both the indentified participants and the general program of the school. In order to evaluate the specified behavioral objectives and to observe pupil achievement under the general program, certain tests were administered to monitor changes in critical variables. These instruments were selected under the guidelines of the compensatory programs and in accordance with the testing program of the school system. The following instruments were used: the Metropolitan Achievement Tests in reading were administered to all Title I pupils. The Self-Appraisal Inventory was administered to Title I pupils to determine changes in self-concept. The Iowa Tests of Basic Skills were administered throughout the entire school system. The Basecheck, a locally devised preschool instrument was administered to all kindergarten pupils to determine their readiness for first grade. (Author/JM)

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RESEARCH AND DEVELOPMENT REPORT

VOL. VII, NO. 22 November, 1973

A CONCERN FOR ACADEMIC AND SOCIAL GROWTH

H. R. BUTLER ELEMENTARY SCHOOL
1972-73

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TABLE OF CONTENTS

	Page
RATIONALE	1
INTRODUCTION	1
NEEDS	3
GOALS	3
BEHAVIORAL OBJECTIVES	4
CRITICAL VARIABLES	5
SUPPORTIVE PROJECTS	
Title I - Elementary and Secondary Education Act	6
Preschool Education for the Handicapped	7
Comprehensive Instructional Program	7
MANAGEMENT AND CONTROL	
Administration	8
Instructional Organization	8
Program Planning and Inservice Training	9
Staff Attitude Toward Education	10
PROCESS	
Instructional	10
Personal Development	12
Parental Involvement	12
EVALUATION	
Research Design	13
Findings	15
Title I Program	15
Preschool Education for the Handicapped	18

TABLE OF CONTENTS (Cont'd)

	Page
General Program	19
Observations	24
COST ANALYSIS	25
CONCLUSIONS	25
RECOMMENDATIONS	28

LIST OF TABLES

Number		Page
1	Results of the Reading Subtests of the Metropolitan Achievement Tests for Title I Pupils	16
2	Results of the Self-Appraisal Inventory for Title I Pupils and Their Corresponding T-Ratios	18
3	Gains in Grade Equivalents on Standardized Test Scores in Vocabulary, Reading, and Mathematics From April, 1971-72 to April, 1972-73	20
4	Butler Elementary School Iowa Tests of Basic Skills, April, 1973	21
5	Comparison of Standardized Tests Scores for Three Successive Years	22
6	Per Pupil Expenditures of General and Compensatory Funds	26

I. RATIONALE

H. R. Butler Elementary School was the recipient of local and federal compensatory funds during the 1972-73 school year. Through the local Comprehensive Instructional Program, the school received testing and personnel services pertinent to the reading program, particularly in the primary grades. Federal funds from Title I of the Elementary and Secondary Education Act provided professional and paraprofessional staff and funds for materials and supplies to improve the reading achievement of the most educationally deprived pupils. Services were also supplied by a Georgia State University program to kindergarten pupils suspected of having learning disabilities and handicaps.

The purpose of this report is to evaluate the effects of these special projects on both the indentified participants and the general program of the school. To this end, data have been collected to measure pupil progress toward the behavioral objectives specified by the grant proposal and those objectives defined by the faculty and staff for the entire pupil population. Additional information will supplement the required measures and offer further evidence of the school's progress toward its goals. Programs will also be subject to cost analysis and longitudinal studies of effectiveness.

II. INTRODUCTION

Butler Elementary School is located near the main business district of Atlanta, in an area whose population is composed mainly of low-income black families. The school community is bounded on the north by a federal housing project and a major hospital, on the south by low-income private apartments, on the east by small businesses and on the west by a railroad. The majority of the children who attend Butler School live in either federally-owned or privately-owned low-rent apartments. Most of them are from single-parent families who receive assistance from Aid to Families with Dependent Children. Approximately 75 per cent of the pupils' families earn less than $2,000 annually, thereby qualifying the school for Title I assistance.

At the beginning of the school year, 386 children were enrolled in kindergarten through the fifth grade. Attendance for 1972-73 remained similar to that of the previous four years and averaged about 93 per cent. Little migration occurred either into or out of the school, causing a mobility index of .16. At the end of the school year, 395 pupils were enrolled in the school.

According to standardized tests that were administered in April of the previous school year, 1971-72, pupils averaged from nine months behind their grade placement in the second grade, to two years and three months behind in the fifth grade in the area of reading. In arithmetic computations, standardized test scores for second grade pupils averaged five months behind grade placement while pupils in grades three, four, and five averaged about 1.5 years behind the norms. This performance was similar to the performance of 1970-71, although the primary grades did slightly better in 1971-72 and the fourth and fifth grades did somewhat better in 1970-71. The academic program for 1972-73 aimed to improve achievement in basic skills as evidenced by performance on standardized tests.

While little change has occurred over the past few years in the type of pupil enrolled in the school, some organizational changes have been made to provide a better quality of instruction. In 1970-71 the sixth and seventh grades of Butler School were transferred to Walden Middle School, leaving only kindergarten through fifth grades. In the same year, the new principal and the faculty worked together to departmentalize the fourth and fifth grades in all areas of instruction. The services of the Comprehensive Instructional Program were incorporated into the school in 1970-71, and the Title I program, which had been in the school for six years, redefined its guidelines in 1972-73 to insure intensive compensatory instruction for the lowest achieving pupils. One anticipated change that did not occur in 1972-73 was the funding of new programs under Title IV-A that would have provided breakfast and snacks, family services, and remedial and enrichment activities.

III. NEEDS

The following needs of the pupils in Butler Elementary School were identified by the teachers through observation and the use of diagnostic tests.

A. To develop a desire to achieve academically.

B. To attend school regularly.

C. To experience success in school in order to feel a sense of belonging.

D. To develop the incentive to become the superior type of citizen which is needed in the school community.

E. To acquire respect for one's self and worthy personal goals, including self-discipline and respect for law and individual worth.

F. To develop self-assurance that will encourage them to verbalize freely and creatively.

IV. GOALS

The goals of the program as set forth by the faculty of Butler School were concerned with the whole child, his academic needs and his personal growth. Through academic instruction in an open atmosphere, the program aimed to accomplish the following goals:

A. To systematically appraise the progress of each pupil and to provide him with learning opportunities at his level of proficiency.

B. To provide a suitable and stimulating environment in the classroom that will allow pupils to think rationally and to express thoughts clearly.

C. To encourage practices that develop good health and physical fitness.

D. To provide activities that promote understanding of the rights and duties of the pupil as a member of the family, of the community, and of the society.

E. To provide activities that develop personal values and principles, including respect for and cooperation with others.

F. To provide cultural activities that will stimulate an interest in and an appreciation for beauty in art, literature, music and nature.

G. To help pupils to understand the economic consequences of purchasing and using goods and services.

H. To encourage the wise use of leisure time, balancing activities that yield satisfaction to the individual with those that are socially useful.

V. BEHAVIORAL OBJECTIVES

These behavioral objectives were established to serve as guidelines for the program and as a means of measuring academic progress and organizational improvement.

A. According to the objectives of Title I, pupils in that program will increase their standardized reading scores at a rate of one month of gain for each month of instruction.

B. Pupils in the Title I program will show improvement in self-concept and attitude toward school as measured by pre and post administration of appropriate affective instruments.

C. The parents of every Title I pupil shall be personally contacted at least once by a member of the Title I staff during the year.

D. In grades two through five, the mean reading scores of the pupils in each grade will improve by at least one year over their scores of April, 1972, as measured by standardized tests.

E. In grades two through five, the mean computation scores of the pupils in each grade will improve by at least one year over their scores of April, 1972, as measured by standardized tests.

F. Pupil attendance for 1972-73 will increase by at least one percentage point over 1971-72.

VI. CRITICAL VARIABLES

The specific variables in which the faculty hoped to observe change included the following:

A. For Title I participants

1. Word knowledge
2. Word analysis
3. Reading comprehension
4. Self-concept
5. Attitude toward school
6. Parent conferences.

B. For all pupils

1. Word knowledge
2. Reading
3. Mathematics computation
4. Percentage of attendance.

VII. SUPPORTIVE PROJECTS

Three supportive projects provided supplementary funds and services to the existing educational program. All of them served to fulfill the identified needs of the pupils, either by serving pupils directly or by providing teacher training. A brief description of each program as it was implemented at Butler School follows.

Title I - Elementary and Secondary Education Act

The English-Reading Program under Title I provided compensatory education for the most educationally deprived pupils in the school. The primary objective of this activity was to improve the reading competencies of the most deprived pupils through tutorial and/or individualized instruction. By improving academic performance, the program also aimed to enhance pupils' self-concepts and attitudes toward school.

Pupils were selected to participate in the program on the basis of their standardized test scores of the previous spring. The lowest scoring seventeen per cent of the population were selected from all grade levels except kindergarten. Participants were expected to remain in the program for the entire year unless they reached grade level performance before the year's end.

Individualized instruction beyond the regular reading program was provided by a lead teacher and three aides for the first seven months of the year, after which time a certified teacher joined the staff. The roles of the lead teacher and the aides were well defined within the grant proposal. The lead teacher coordinated the program, directed testing, assessed pupils' strengths and weaknesses, and prescribed activities for each pupil's needs. Furthermore, she provided inservice training for the educational aides, assisted classroom teachers of Title I pupils with reading instruction problems, directed parent involvement, and provided a program aimed to improve the self-image of the most educationally deprived. The teacher aides assisted the lead teacher in small group instruction, assisted the classroom teacher of Title I pupils during the reading period, made instructional games and visual aids for the resource room, and contacted and conferred with parents of Title I pupils regarding the compensatory program. The responsibilities of the certified teacher assigned to the program in April were determined by the lead teacher as the most necessary and advantageous to the pupils. Therefore, the certified teacher was assigned to work

with those pupils who had made the least progress during the year. These pupils then received daily intensive instruction either individually or in small groups of two or three.

Seventy-one dollars per quarter was allotted to Butler School for purchasing of program materials and supplies. These funds were used to buy three levels of the Specific Skills Series by Barnell, Loft Ltd. to aid pupils in reading comprehension and in following directions.

Pupils identified for this program were also eligible for health and medical services. In November the pupils were examined for visual problems and five were referred for further examination. Three children were provided with corrective lenses while two other children received a doctor's treatment.

Preschool Education for the Handicapped

Georgia State University sponsored a teacher education program designed to prepare master's level teachers with both early childhood and special education competencies. Teachers in the program worked with the kindergarten class of Butler Elementary School while training to work with preschool handicapped children in the identification and prevention of potential educationally significant learning problems.

Five graduate level students worked under a master teacher in a resource room where kindergarten children who were suspected of having learning disabilities were referred. They worked very closely with the kindergarten teacher in monitoring the pupils' needs and progress. Frequent conferences were held between the kindergarten teacher, the program teacher and each child's parents.

Comprehensive Instructional Program

The Comprehensive Instructional Program (CIP) focused on diagnostic teaching in reading, particularly in the primary grades. Pupils in grades one, two and three were tested once each quarter with diagnostic instruments in reading skills and comprehension. Results were quickly returned to teachers, listing each child's performance on each item of the test. Resource personnel from the Area office were available to all teachers for advice and assistance concerning instructional problems.

VII. MANAGEMENT AND CONTROL

Administration

The Superintendent of the Atlanta Public Schools is appointed by the Board of Education and is authorized to administratively direct the instructional program of the school system. Under his direction, five area superintendents administer the programs of the schools of the five geographic areas which comprise the system. Six assistant superintendents supervise the six divisions of supportive services to the instructional program. These divisions are: (1) Research and Development, (2) Staff Personnel Services, (3) Instruction, (4) School Plant Planning and Construction, (5) Administrative Services, and (6) Comptroller.

The Assistant Superintendent for Research and Development and his staff are responsible for developing new programs, evaluating the effectiveness of program activities, and dissemination of information.

The Assistant Superintendent of Staff Personnel Services and his staff are responsible for meeting the staffing needs of the instructional programs within the schools and the project activities.

Inservice training for teachers, staff development activities, and curriculum development are directed by the Assistant Superintendent for Instruction and his staff. Within this Division, the directors and coordinators of federal, state, and local projects and various curriculum areas work with the staffs of other divisions, the area office, the principal, and the teachers to implement programs and to provide for the training needs of the school personnel.

At the local school level, the principal is responsible for the administrative aspects of the school program. Among the administrative responsibilities of the principal are the assignment of teachers to classes, conferring with parents, involving the community, and the supervision of instructional and staff development activities.

Instructional Organization

Thirteen classroom teachers instructed pupils in kindergarten through the fifth grade. The kindergarten class extended from 9:00 A.M. until 2:00 P.M. Pupils of grades, one, two, and three were taught in self-contained classrooms while the fourth and fifth grades were departmentalized in all subject areas, except reading, where each teacher was responsible for one class. A teacher of

the educable mentally retarded, a librarian, and three part-time teachers in the areas of music, physical education and speech therapy rounded out the regular school staff. A part-time social worker was also assigned to the school.

The lead teacher and the educational aides under Title I were assigned to the school at the beginning of the school year. In December, funds were released to provide an additional certified teacher for the program. Over two months after the release of the funds a certified teacher had not yet been assigned although the area Title I coordinator and the area superintendent were aware of the opening. The principal was asked to select one of his regular classroom teachers for the position and to have that teacher's position filled by a new teacher. Approximately two months later a fourth grade teacher was assigned to Title I and a frequent substitute was hired on a full-time basis. The fourth grade teacher assigned to Title I had demonstrated remarkable capabilities as a reading teacher especially with small groups. Unfortunately, the arrangements were not made early enough in the school year for pupils to enjoy the maximum benefits.

Although the aides assigned to the Title I program fulfilled the requirements of the school system, some of them lacked the knowledge of basic skills which would have increased their contributions to the program. Considerable training was needed to improve their abilities. However, all of the aides displayed sympathy and understanding for the pupils in the program and worked hard to improve their own skills.

Program Planning and Inservice Training

Meetings of the entire faculty were held once each month for both administrative purposes and professional development. Meetings used for professional development included speakers from the area office and the Georgia Department of Human Resources. Teachers appointed as grade level chairmen also held meetings of the teachers of their respective grades once a month to discuss situations and problems unique to their pupils.

None of the regular staff participated in inservice training during the school year. The Title I staff, including the lead teacher and the three educational aides received some inservice training on the school, area, and system wide levels. The lead teacher began the year with weekly training sessions for the aides to instruct them in the use of various reading materials, to teach them to make educational games and visual aids, and to guide them in their

communication with the parents of Title I pupils. Area-wide and system-wide inservice training was provided through Title I for the lead teachers of the program.

Staff Attitude Toward Education

Butler Elementary School served as a control school in the evaluation of the Career Opportunities Program (COP). In April, teachers and aides were requested to complete the Opinionnaire On Attitudes Toward Education by H. C. Lindgren and G. M. Patton. The instrument is designed to measure attitude toward child-centered policies and practices in education. Respondents were asked to agree or disagree with 50 statements concerned with the desirability of understanding the behavior of students, the desirability of the teacher's using authoritarian methods as a means of controlling behavior, and the desirability of subject-matter centeredness as contrasted with learner- or child-centeredness. The attitude score was the number of positive items agreed with plus the number of negative items disagreed with, where positive items were favorable to child-centered practices. The theoretical range of scores was from zero to fifty, with the highest score indicating more favorable attitudes toward child-centered policies and practices in education.

All of the classroom teachers, the Title I lead teacher, and the three aides responded to the questonnaire. The scores ranged from 24 to 45 yielding an overall mean score of 36. The mean score for the classroom teachers was 37 and the score for the aides was 32. Comparison to scores in other Title I schools can be found in the final COP report for 1972-73.

IX. PROCESS

Instructional

Reading instruction was the focus of both the regular and the compensatory programs in the school. In the regular instructional program the MacMillan Basal Series served as the main reading text for all grades, supplemented by the Scott-Foresman Open Highway Series, particularly in the upper grades. A variety of resource materials and audio-visual aids were also used to supplement reading instruction. Approximately one and one-half hours per day were spent on the reading program in the regular classroom setting.

The social studies program aimed to reinforce the reading program by providing a series which was consistent with the vocabulary of the reading series. The MacMillan Series was carefully perused and selected for use in the fourth and fifth grades.

Pupils who participated in the Title I English-Reading Activity received further reading instruction each day in addition to that provided in the classroom. Pupils visited the reading resource room for approximately 40 minutes everyday where the lead teacher, assisted by the aides, worked with them on activities prescribed for their individual levels of proficiency. Prescriptions were based on diagnostic tests administered frequently during the year, including the Newman Analysis, Comprehensive Instructional Program diagnostic tests, informal inventories and teacher-made tests. Materials used in the Title I program included the Specific Skills Series, the Starter 101 Series, The MacMillan Basal Series, Ginn Reading 360 Series, and Dr. Spello books of the Webster Division of McGraw-Hill. In addition to these resources, learning activities were provided through games made by the Title I aides under the guidance of the lead teacher.

Coordination of regular and compensatory reading instruction was provided through the educational aides. The aides worked in the classrooms of Title I pupils twice each week, assisting the classroom teacher with individual and small group instruction as requested. Classroom teachers were kept constantly informed of the pupils Title I activities through instructional prescriptions sent by the lead teacher to advise them of the child's areas of weakness and to recommend resource materials. Teachers, in turn, informed the lead teacher of the pupil's progress in classroom activities.

The Addison-Wesley Math Series was purchased for all grade levels in 1972-73 to provide a uniform basal series throughout the school. In the fourth and fifth grades, classes were departmentalized in mathematics and pupils were grouped for instruction according to their previous achievement levels.

In the preschool education program under Georgia State University, all kindergarten pupils were tested extensively in order to determine the possible existence of learning disabilities and poor social and language development. Fifteen pupils attended the resource room regularly. Every child received small group instruction for 15 minutes and individual attention for 30 minutes, for four days each week. The instruction concentrated on language development and social skills, stressing those skills recommended by the kindergarten teacher or indicated as poorly developed by the test results.

Personal Development

A variety of field trips and outside resources provided activities aimed to widen the pupils' experiences and to increase their understanding of the world around them in fulfillment of those stated goals concerned with the personal development of the child. Pupils from various grade levels visited such places as the state capitol, the zoo, the public library, the museum, Stone Mountain, and the opera. The general pupil population also shared a number of the activities designed for Title I pupils.

The lead teacher at Butler provided a strong program for Title I pupils aimed to improve self-concept and attitude toward school. A number of movies were shown to expose the pupils to the lives of famous black persons, including Martin Luther King, and Jackie Robinson. Many books and records were borrowed from the public library to allow pupils to read and hear the works and the biographies of black people. Members of the community were invited to speak to the class about their careers as a businessman, a photographer, and a preacher. The lead teacher's efforts culminated in a drama on self-identity entitled "Afrique - American: I am Somebody." This program was a series of performances in which every Title I pupil participated. The children sang, danced, recited poetry, and enacted scenes of black history in two shows viewed by parents, teachers, pupils, community members, and television and newspaper personnel.

Parental Involvement

Fewer parents participated in involvement groups this year than participated last year. An average of ten parents attended the monthly meetings of the Parent Involvement Group compared to 15 to 20 the previous year. At their meetings parents observed an art demonstration and listened to speakers on the preschool learning disabilities program and the Title I compensatory reading program. The PTA met monthly but averaged very few in attendance. At the beginning of the school year, the president of the PTA and the president of the grade mothers met with the superintendent of schools to discuss the possibility of reducing the pupil-teacher ratio at the school. Although the ratio at that time was 26:1, in accordance with state law, and acceptable to the local system, parents felt that the ratio was too high for underachievers. Their meeting with the superintendent yielded no changes.

The lead teacher attempted to interest the parents of Title I pupils in their children's activities and to solicit their participation in the school program. Homework assignments were sent to parents to keep them informed of the pupil's activities and to encourage their assistance in the child's lessons. Three meetings of all Title I parents were held throughout the year with a maximum of 40 per cent of the parents attending. Approximately half of the parents viewed the program on black identity produced by the Title I pupils.

X. EVALUATION

Research Design

In order to evaluate the specified behavioral objectives and to observe pupil achievement under the general program, certain tests were administered to monitor changes in the critical variables. These instruments were selected under the guidelines of the compensatory programs and in accordance with the testing program of the school system. Analysis of the test results in response to the objectives was supplemented by additional analysis to provide further insight into the progress of the school toward its goals.

The following instruments and analysis were used:

A. The Metropolitan Achievement Tests (MAT) in reading, published by Harcourt, Brace, Jovanovich, Inc., copyright 1971, were administered to all Title I pupils, according to their grade level, in October and May of the school year. The gains made on the "Word Knowledge" and the "Reading Comprehension" subtests in terms of grade equivalents were calculated for grades two through five. "Word Analysis", also a critical variable, was not measured by the posttest for these grades. In the first grade, a readiness test was administered as a pretest and was not convertible to grade equivalents so no gains could be calculated.

B. The Self-Appraisal Inventory (SAI) constructed by the Instructional Objectives Exchange, was administered at the beginning and end of the school year to Title I pupils to determine change in self-concept as it related to peers, to family, to school, and to general self-esteem. The School Sentiment Index, also constructed by the Exchange but

to measure attitude toward school, was administered to pupils at the beginning of the school year. The correlation between the total scores of the two tests for the fourth and fifth grade pupils was .88, high enough to warrant the decision to administer only one of the tests at posttesting.

The answers to the pretests for the primary grades were reviewed by the research assistant and the testers and were judged to be inappropriate and randomly answered. Therefore, primary pupils were excluded from the posttesting and pretest results were not recorded.

The means of the raw scores of the SAI were submitted to a t-test of dependent means to determine the statistical significance of any change.

C. Records kept by the Title I lead teacher were used to determine the number of parents of Title I pupils who were visited during the year.

D. The Iowa Tests of Basic Skills (ITBS) by the Houghton Mifflin Company, copyright 1971, were administered throughout the entire school system in April, 1973. Results of the vocabulary, reading and total math subtests were compared to subtests of the MAT administered in April, 1972, after analysis by the Research and Development (R & D) Division yielded high correlations between the two tests. The comparison was in response to specified objectives.

Additional analysis done by the R & D Division determined the relationship of pupil performance to predicted performance and to national norms for reading comprehension, mathematics, and the composite score of the ITBS. A regression formula that accounted for past achievement, mobility, attendance, socioeconomic status, and the pupil-teacher ratio predicted the scores on the ITBS. This predicted score was then divided by the actual score to yield a predicted achievement index. Likewise, the national norm was divided by the actual score to yield a national achievement index.

E. The Baseckeck, a locally devised preschool instrument was administered to all kindergarten pupils in May to determine their readiness for first grade. It tests for language, visual perception, auditory perception, and number concepts.

F. The cumulative percentage of attendance for grades kindergarten through five for the entire school year was compared to the cumulative percentage of attendance for the previous year. Figures were computed by the Statistical Department of the school system from data reported by the school.

Findings

The success or progress of both the compensatory and the general programs was determined by changes in the critical variables as measured by the specified instruments. Additional analyses and comparison of the results were selected to provide insight into the causes of success or failure of pupils to meet the objectives, or to highlight related areas of achievement.

A. Title I Program

Specific objectives for Title I pupils as stated in the grant proposal required them to improve standardized test scores in reading skills and reading comprehension and to improve self-concept and attitude toward school. The lead teacher further aimed to hold at least one personal conference with each participant's parent or guardian.

1. The objective for reading stated that pupils would increase their scores in word knowledge, word analysis and reading comprehension by at least one month for each month in the program as measured by the MAT. Tests were administered in October and May, necessitating at least seven months gain to meet the objective. Generally, the Title I pupils at Butler did not meet the objective except in grades one and three. Table 1 provides the test data for this conclusion. Although an exact gain could not be calculated for pupils of the first grade, the mean score for both subtests was approximately on grade level, 1.8, at the time of posttesting. Third grade pupils had a mean gain of 13 months and 6 months in word knowledge and reading comprehension respectively, with 75 per cent of the pupils gaining at least 7 months. Although second grade pupils scored acceptable mean gains, fewer than one-third of the pupils actually gained the required seven months. The high mean gain in word knowledge was caused by three pupils who gained 12, 14, and 16 months between the two tests. The gains of the second grade pupils in reading comprehension were more consistent,

with a mean deviation of 2.5 months. The word analysis subtest was not available as a posttest for grades two through five, negating the possibility of evaluating that part of the objective.

TABLE 1

Results of the Reading Subtests
of the Metropolitan Achievement Tests
for Title I Pupils

Word Knowledge Subtests

Grade	No. of Pupils	Mean Scores			Per Cent Gaining At Least 7 Months
		Pre	Post	Gain	
1	13	-	1.9	-	-
2	12	1.5	2.3	0.8	25.0
3	12	2.1	3.4	1.3	75.0
4	14	2.2	2.3	0.1	0.0
5	14	3.5	3.1	-0.4	0.0

Reading Comprehension Subtest

Grade	No. of Pupils	Mean Scores			Per Cent Gaining At Least 7 Months
		Pre	Post	Gain	
1	13	-	1.7	-	-
2	12	1.6	2.1	0.5	33.3
3	12	1.9	2.5	0.6	75.0
4	14	2.1	2.0	-0.1	23.0
5	14	3.2	3.0	-0.2	28.6

The more favorable performance of the primary pupils over those of grades four and five may be due to two major causes. First, departmentalization of the fourth and fifth grades caused scheduling problems that often prevented Title I pupils in these grades from participating in the daily activities that were planned for them. The self-contained situation of

the primary grades, on the other hand, permitted classroom teachers to be more flexible in releasing the children. Secondly, there appeared to be some misunderstanding about the compensatory nature of the Title I program that resulted in the middle elementary participants failing to receive full regular classroom instruction in reading. The lead teacher also noted a basic lack of organization of pupils in these grades who usually appeared without paper and pencils and who had difficulty keeping track of assignments and work sheets.

The performance of the first grade merits special attention. Three pupils who began the program were returned to the classroom during the year after having attained grade level performance. Other pupils were brought in to replace them. Of all the first grade pupils who began the program in the fall, the mean posttest score in word knowledge was 2.1 and in reading was 1.9.

2. The Title I grant proposal stated as behavioral objectives that pupils would demonstrate a more positive attitude than pupils who did not participate in the activity, and that pupils would show improvement in self-concept statistically significant at the .05 level. The instrument administered to monitor these changes was the Self-Appraisal Inventory (SAI). No control group was used since the Title I pupils were the lowest-achieving in the school and, therefore, no similar population was available.

A t-test of means was done on the pretest and posttest raw scores of the SAI for fourth and fifth grade pupils who participated in the program for the entire year. Table 2 shows no statistically significant improvement for either grade on any of the four subtests (Peer, Family, School, and General) or on the test total, although the Title I staff at this school had exerted considerable effort to improve the pupils' self-images. Pupils scored approximately the same on the posttest as they had on the pretest, and generally showed more positive attitudes than negative attitudes.

TABLE 2

Results of the Self-Appraisal Inventory for Title I Pupils and Their Corresponding T-Ratios

Subtest	Grade	Mean Score Pre	Mean Score Post	T-Ratio
Peer*	4	11.4	11.1	-0.29
Family*	4	13.9	13.8	-0.15
School*	4	12.4	10.2	-1.95
General*	4	13.0	14.0	1.21
Total	4	50.7	49.1	-0.56
Peer*	5	12.1	12.9	0.68
Family*	5	13.1	14.0	0.92
School*	5	13.4	14.2	0.74
General*	5	14.2	14.0	-0.19
Total	5	52.7	55.1	0.78

*Maximum score equals 20.

3. An objective defined by the school for its Title I program required that the parent or guardian of each Title I participant would be personally contacted by a Title I staff member at least once during the year. Records kept by the lead teacher showed that the staff had met with the parents of all but six children either at a PTA meeting, at the school, or in the parent's home. At least three attempts were made to contact the other parents by telephone, by mail, or by home visits, but with no success.

B. Preschool Education for the Handicapped

Georgia State University, sponsor of the program, planned a comprehensive evaluation of both the degree candidates and the kindergarten pupils involved. The regular teacher of the kindergarten class was extremely pleased with the cooperation and concern of the program staff. She felt that their involvement had benefitted the

handicapped children, and had allowed her to give even more attention to other children. As a whole, the entire kindergarten class scored 84 on Basecheck at the end of the school year with only 5 out of 33 pupils scoring below 75. Twelve pupils scored above 90 per cent.

C. General Program

Reading, mathematics and attendance were the areas of focus of the behavioral objectives defined for the general program. Analysis of test data by the Division of Research and Development of the Atlanta Public Schools contributed considerable information in these areas as well as in the composite standing of each grade.

1. The objective defined for the entire pupil population in the area of reading required that each grade improve its previous year's standardized reading test score by one year. Due to a change in the test, this objective necessitated a comparison of standardized tests of two different publishing companies. Analysis of the tests by the R & D Division showed a correlation of .92 existed between the reading test score of the MAT, administered in 1972, and the reading test score of the ITBS, administered in 1973. The high correlation suggested that the scores of the two tests could be validly compared.

   Both the vocabulary and the reading subtests were observed for change. (See Table 3.) In vocabulary, the second and the fifth grades of 1972-73 increased their 1971-72 scores by at least one year. None of the grades met the objective in reading. Furthermore, the maximum gain by any one grade in reading was only seven months in a one year period.

TABLE 3

Gains in Grade Equivalents
On Standardized Test Scores in
Vocabulary, Reading, and Mathematics
from April, 1971-72 to April, 1972-73

Grade	Vocabulary	Reading	Mathematics
2	1.0	.1	.7
3	.6	.7	.3
4	.4	.5	.6
5	1.0	.5	.5

The objective, like the test itself, was based on the norm of one year's gain for each year in school. However, even the publishers of the test in their Teacher's Guide warn that the norm was based on the "average" child. Information about the achievement of the Butler School children as found in Research and Development Reports Volume VI, No. 11, December 1972; Volume VI, No. 18, March 1973; and Effective? Acceptable? published for 1970-71 indicated that the achievement levels of most Butler pupils were considerably behind the "average". The description of the community found in the introduction to this report and the school's eligibility for Title I assistance also suggested that pupils of the school were not "average" in their environmental and socioeconomic backgrounds. To compensate for these and other factors, the R & D Division conducted its annual study, evaluating pupils on the basis of predicted scores and national norms (See Research Design). Generally, pupils met neither their predicted scores nor the national norms. Their average predicted achievement index was 95, i.e., pupils, on the average, scored 95 per cent of their predicted score. In relation to national norms, pupils scored 68 per cent of the norms. Table 4 shows that the third grade was the only exception to the general trend, achieving a predicted achievement index of 108, i.e., scoring two months higher than their predicted average.

TABLE 4

Butler Elementary School
Iowa Tests of Basic Skills, April, 1973

Grade	Grade Equivalent Score			Summary Achievement Indices	
	Actual	Predicted	National Norm	Predicted	National
			Reading Test Data		
2	2.2	2.4	2.7	93	80
3	2.8	2.6	3.8	108	74
4	2.8	3.1	4.7	90	59
5	3.4	3.8	5.7	89	59
			Average	95	68
			Mathematics Test Data		
2	2.7	2.4	2.6	112	104
3	2.8	2.7	3.7	101	76
4	3.1	3.3	4.7	95	66
5	3.7	4.0	5.6	91	65
			Average	99	77
			Composite Test Data		
2	2.4	2.5	2.6	96	90
3	3.0	2.7	3.7	109	80
4	3.1	3.3	4.7	94	66
5	3.8	4.0	5.7	94	66
			Average	98	75

One further comparison of reading scores was made using scores for three successive years which are shown in Table 5. This comparison must be prefaced by a word of caution about the use of such data. Because the population varied from year to year and because the test itself changed after 1971-72, the data can only suggest the possiblity of trends and cannot establish them in fact. The scores are mean scores

for all pupils who took the test administered in the spring of each of the three school years. Scores for 1970-71 and 1971-72 are from the MAT while the 1972-73 scores are from the ITBS. Over three years, the second and third grades showed improvement in their mean score each year, but the fourth and fifth grades dropped in scores each year.

TABLE 5

Comparison of Standardized
Test Scores for Three Successive Years

Grade	1970-71	1971-72	1972-73
	Vocabulary		
1	-	1.8	1.1
2	2.0	2.2	2.8
3	2.2	2.4	2.8
4	2.9	2.8	2.8
5	4.5	3.8	3.8
	Reading		
1	-	2.1	1.5
2	1.5	2.1	2.2
3	1.8	2.3	2.8
4	3.1	2.9	2.8
5	4.1	3.7	3.4
	Mathematics		
1	-	2.0	1.2
2	1.9	2.5	2.7
3	2.4	2.5	2.8
4	3.4	3.2	3.1
5	4.7	4.4	3.7

One possible explanation for the better performance of the primary pupils over the fourth and fifth grade pupils in the last three years is the existence of the Comprehensive Instructional Program (CIP). (See Supportive Programs.) CIP has concentrated in the primary grades since its inception in 1970. By implementing a diagnostic testing program which was administered three times a year, it increased tremendously the teachers' awareness of the pupils' weaknesses and strengths, and allowed them to further individualize instruction. The fourth and fifth grades had no mandatory diagnostic program.

2. The behavioral objective for all pupils in mathematics required that the mean scores of the computation subtest be increased by one year over the previous year's scores. Since a different test was administered in 1972-73, no subtest was exactly comparable to the computation subtest of the previous year. However, the "Total Math" score of the ITBS correlated .95 with the "Computation" score of the MAT. Therefore, comparison of those scores was made.

None of the grades met the behavioral objective in mathematics as indicated by data in Table 3. The average gain of the four grades was five months with a high gain of seven months for the second grade. However, in terms of the predicted scores of the pupil achievement study of the R & D Division, the pupils were generally effective in their performance on the mathematics subtest of the ITBS. (See Table 4.) An average predicted achievement index of 99 resulted for the four grades, with both the second and third grades scoring greater than the predicted score. Pupils of the second grade also scored one month above the national norm. The first grade, which was not involved in the study, had a mean score of only 1.2 in total math, or 70 per cent of the national norm. The average national achievement index for the other grades was 77.

Test scores in mathematics for the past three years showed the same trend as in reading. (See Table 5.) The primary grades have generally improved each year while the fourth and fifth grades have fallen. The added concentration of CIP on mathematics in grades four, five, and six for the past two years has yielded no improvement. However, actual assistance from the program has been minimal.

3. The R & D Division also included the composite score of the ITBS in its pupil achievement study. This score is designed to reflect the general standing of a pupil over all subject areas. For grades two through five at Butler School, pupils were generally effective with an average predicted achievement index of 98, but were not within an acceptable range of national norms. (See Table 4.) The third grade's projected quotient of 109 was the score which boosted the average index to an effective level. However, no grade scored more than two months behind its predicted score. The first grade, not included in the study, scored 1.3 on the composite score or four months behind grade level.

4. The final behavioral objective defined for the pupil population was to improve the overall percentage of attendance by at least one percentage point over the previous year. In fact, attendance increased by two percentage points from 91 to 93 per cent. This was also an increase of one per cent over the 1970-71 school year. The objective was met.

D. Observations

Frequent visits and discussons with the staff yielded additional observations of extended effort in the school. One particular case illustrated the staff's concern for the individual needs of each child and their efforts to utilize current methods to solve the problem.

G. C. was eight and, according to his age, should have been in the third grade. However, his attendance record the first two years of school was very poor, working to the detriment of his education. Furthermore, G. C. was blind in one eye which was glazed and distorting to his appearance. At the beginning of the year he hated school to the point where he physically reacted to it by vomiting whenever he was forced to attend. Through a system of positive reinforcements administered by the principal and the social worker, he gradually came to attend school regularly. Problems of grade placement, complicated by his tendency to revert, were resolved after many attempts to place him where he would both feel comfortable and learn some basic skills. By the end of the school year, the child was attending school daily, learning the alphabet, and joining the cub scouts.

XI. COST ANALYSIS

Expenditures of both general and compensatory funds were calculated to determine the relationship between program costs and pupil achievement as measured by the predicted achievement index. Table 6 outlines the analysis. From general funds, approximately $795 per pupil was spent for both salary and nonsalary expenses. In grades one through five where the Title I program operated, $94 per pupil was expended. Dividing the per pupil expenditures by the predicted achievement indices for each grade level from two through five yielded the cost per unit of the index, i.e., the amount of money expended for each child to achieve one unit of the predicted achievement index. The cost ranged from $7.29 to $8.46 for general funds and from $1.00 to $1.98 for special funds. Since the per pupil cost was the same for every grade level, the difference in cost per unit of the index was the result of different predicted achievement indices. From this data the conclusion was drawn that expenditures seemed generally unrelated to pupil achievement as measured by the predicted achievement index.

XII. CONCLUSIONS

The conclusions made here are based on the objective data presented in Findings in consideration of the goals of the school.

A. First and third grade participants in the Title I program generally achieved one month of gain for each month of instruction in reading as required by the program's objective. Second, fourth, and fifth grades generally did not.

B. The Self-Appraisal Inventory perceived no changes in self-concept in Title I pupils during the school year.

C. No grade improved its previous year's standardized reading test scores by one year as required by the objective; however, in the related area of vocabulary, both the second and the fifth grades gained one year or more on the test.

D. No grade improved its previous year's standardized math scores by one year as required by the objective.

TABLE 6

PER PUPIL EXPENDITURES OF GENERAL AND COMPENSATORY FUNDS

	Grades						
	Kdg.	First	Second	Third	Fourth	Fifth	Average
Average Daily Attendance	28	53	64	59	68	69	
Per Pupil Cost							
A. General Funds							
1. Regular							
a. Salary	$ 735	$ 735	$ 735	$ 735	$ 735	$ 735	$ 735
b. Nonsalary	59	59	59	59	59	59	59
c. Total	$ 794	$ 794	$ 794	$ 794	$ 794	$ 794	$ 794
2. CIP							
a. Salary	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-
b. Nonsalary	-0-	0.62	0.62	0.62	0.62	-0-	0.44
c. Total	$ -0-	$ 0.62	$ 0.62	$ 0.62	$ 0.62	$ -0-	$ 0.44
3. Total General Funds							
a. Salary	$ 735	$ 735	$ 735	$ 735	$ 735	$ 735	$ 736
b. Nonsalary	59	60	60	60	60	59	59
c. Total	$ 794	$ 795	$ 795	$ 795	$ 795	$ 794	$ 795

TABLE 6 (Cont'd)

	Grades						
	Kdg.	First	Second	Third	Fourth	Fifth	Average
B. Compensatory Funds							
1. Title I							
a. Salary	$ -0-	$ 92	$ 92	$ 92	$ 92	$ 92	$ 85
b. Nonsalary	-0-	2	2	2	2	2	2
c. Total	$ -0-	$ 94	$ 94	$ 94	$ 94	$ 94	$ 87
C. Total Per Pupil Cost*							
1. Salary	$ 735	$ 828	$ 828	$ 828	$ 828	$ 828	$ 820
2. Nonsalary	59	61	61	61	61	61	61
3. Total	$ 794	$ 889	$ 889	$ 889	$ 889	$ 889	$ 881
Predicted Achievement Index	---	---	96	102	94	94	98
Cost Per Unit of Predicted Achievement Index							
A. General Funds	$ ---	$ ---	$ 8.28	$ 7.27	$ 8.46	$ 8.46	$ 8.15
B. Compensatory Funds	---	---	1.98	1.86	1.00	1.00	1.96
C. Total	$ ---	$ ---	$ 9.26	$ 8.15	$ 9.46	$ 9.46	$ 9.14

* Figures may contain rounding errors.

E. Except in the third grade, pupils did not achieve the reading scores predicted for them.

F. The average predicted achievement index in mathematics was an acceptable 99 although grades four and five scored below their predicted means.

G. For the composite score on the ITBS, pupils had an average predicted achievement index of 98, but only the third grade scored greater than was predicted.

H. Pupils did not score within an acceptable range of the national norms for any subject area.

I. Standardized test results in reading and mathematics in the primary grades where the Comprehensive Instructional Program (CIP) has operated for three years has improved commendably over the past three years while performance in grades four and five has fallen.

J. Pupils improved their percentage of attendance by two points over 1971-72.

K. Expenditures of general and compensatory funds seemed to bear no relationship to pupil achievement as measured by the predicted achievement index.

XIII. RECOMMENDATIONS

The following recommendations are made for the consideration of the school staff, based on the data and observations in this report.

A. The staff should consider a more systematic approach to instruction, based on the explicit definition of goals and behavioral objectives.

B. Increased inservice training should be made available in the school and teachers should be encouraged to seek additional training, particularly in reading, through the local schools, workshops, and conferences.

C. Advantage should be taken of the reading performance modules provided by the school system through its area offices.

D. The reading program in the fourth and fifth grades should be analyzed for the causes of decreasing effectiveness in the last three years and consideration given to more diagnostic teaching as a means of improvement.

E. Communication between the Title I staff and the classroom teachers should improve to insure the pupils of the maximum benefits of both the regular and the compensatory reading programs.

The staff at Butler Elementary School is further encouraged to maintain their concern for the pupil's development as a social being and to continue to provide experiences that help pupils to relate to their community and to each other.